AMENDMENT

Claims 1-232 (canceled).

233. (Currently Amended) A method of producing a modulated beam of electromagnetic energy, comprising:

[a] providing a primary beam of electromagnetic energy having a predetermined range of wavelengths ~~and randomly changing orientations of a chosen component of electromagnetic wave field vectors~~;

[b] resolving the primary beam of electromagnetic energy into a primary first resolved beam of electromagnetic energy having substantially a first selected predetermined orientation of a chosen component of the electromagnetic wave field vectors and a primary second resolved beam of electromagnetic energy having substantially a second selected predetermined orientation of a chosen component of the electromagnetic wave field vectors;

[c] separating each of the primary resolved beams of electromagnetic energy into two or more separate beams of electromagnetic energy, each of the separate beams of electromagnetic energy having a selected predetermined orientation of a chosen component of electromagnetic wave field vectors;

[d] altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of a plurality of portions of each of the separate beams of electromagnetic energy by passing the plurality of portions of each of the separate beams of electromagnetic energy through a respective one of a plurality of altering means whereby the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as the plurality of portions of each of the separate beams of electromagnetic energy passes through the respective one of the plurality of means for altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors;

[e] [i] combining the altered separate beams of electromagnetic energy of the primary first resolved beam of electromagnetic energy into a first single collinear beam of electromagnetic energy, without previously subcombining any

plurality of the altered separate beams of the primary first resolved beam and without substantially changing the altered selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy, and

[ii] combining the altered separate beams of electromagnetic energy of the primary second resolved beam of electromagnetic energy into a second single collinear beam of electromagnetic energy, without previously subcombining any plurality of the altered separate beams of the second resolved beam and without substantially changing the altered selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy; and

[f] [i] resolving from the first single collinear beam of electromagnetic energy a first resolved beam of electromagnetic energy having substantially a first selected predetermined orientation of a chosen component of electromagnetic wave field vectors and a second resolved beam of electromagnetic energy having substantially a second selected predetermined orientation of a chosen component of electromagnetic wave field vectors, and

[ii] resolving from the second single collinear beam of electromagnetic energy a first resolved beam of electromagnetic energy having substantially a first selected predetermined orientation of a chosen component of electromagnetic wave field vectors and a second resolved beam of electromagnetic energy having substantially a second selected predetermined orientation of a chosen component of electromagnetic wave field vectors.

234. (Original) A method as described in claim 233 wherein step [a] includes providing a substantially collimated primary beam of electromagnetic energy.

235. (Original) A method as described in claim 233 wherein step [a] includes providing a primary beam of electromagnetic energy having a rectangular cross sectional area.

236. (Original) A method as described in claim 233 wherein step [a] includes providing a primary initial beam of electromagnetic energy having substantially the same selected predetermined orientation for the chosen component of the

electromagnetic wave field vectors substantially across the beam.

237. (Original) A method as described in claim 233 wherein step [b] includes resolving the primary beam into primary first and second resolved beams in which each of the resolved beams of electromagnetic energy has the substantially same selected predetermined orientation of the chosen component of the electromagnetic wave field vectors substantially across each of the resolved beams of electromagnetic energy as that of the other resolved beams of electromagnetic energy.

238. (Original) A method as described in claim 233 wherein step [b] includes resolving the primary beam into primary first and second resolved beams in which the first selected predetermined orientation of the chosen component of the electromagnetic wave field vectors has the same selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the second selected predetermined orientation of the chosen component of the electromagnetic wave field vectors.

239. (Original) A method as described in claim 233 further comprising the step of passing at least one of the resolved beams of electromagnetic energy from step [f] to a projection means.

240. (Currently Amended) A method as described in claim 233 further comprising the step of passing one of the resolved beams of electromagnetic energy from step [f] [i] to a first side of a projection means and passing one of the resolved beams of electromagnetic energy from step [f] [ii] to a second side of said projection means.

241. (Original) A method as described in claim 233 further comprising the step of adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy.

242. (Original) A method as described in claim 241 wherein the step of adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy includes adjusting the predetermined range of wavelengths of at least one of the separate beams of electromagnetic energy.

243. (Original) A method as described in claim 241 wherein the step of adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy includes adjusting the magnitude of at least one of the separate beams of electromagnetic energy.

244. (Original) A method as described in claim 233 wherein step [c] includes separating each of the primary resolved beams into two or more separate beams in which each of the separate beams of electromagnetic energy has the electromagnetic spectrum different from the other separate beams of electromagnetic energy.

245. (Original) A method as described in claim 244 wherein step [c] includes separating each of the primary resolved beams into two or more separate beams in which each of the separate beams of electromagnetic energy has a predetermined range of wavelengths different from the other separate beams of electromagnetic energy.

246. (Original) A method as described in claim 244 further comprising the step of adjusting the magnitude of at least one of the separate beams of electromagnetic energy from step [c].

247. (Currently Amended) A method of producing a modulated beam of light, comprising:

[a] providing a primary beam of light having a predetermined range of wavelengths ~~and randomly changing orientations of a chosen component of electric field vectors~~;

[b] resolving the primary beam of light into a primary first resolved beam of light having substantially a first selected predetermined orientation of a chosen component of the electric field vectors and a primary second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of the electric field vectors;

[c] separating each of the primary resolved beams of light into two or more separate beams of light, each of the separate beams of light having a selected predetermined orientation of a chosen component of electric field vectors;

[d] altering the selected predetermined orientation of the chosen component of the electric field vectors of a plurality of portions of each of the separate beams of light by passing the plurality of portions of each of the separate beams of light through a respective one of a plurality of altering means whereby the selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate beams of light is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as the plurality of portions of each of the separate beams of light passes through the respective one of the plurality of means for altering the selected predetermined orientation of the chosen component of the electric field vectors;

[e] [i] combining the altered separate beams of light of the primary first resolved beam of light into a first single collinear beam of light, without previously subcombining any plurality of the altered separate beams of the primary first resolved beam and without substantially changing the altered selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate beams of light, and

[ii] combining the altered separate beams of light of the primary second resolved beam of light into a second single collinear beam of light, without previously subcombining any plurality of the altered separate beams of the primary second resolved beam and without substantially changing the altered selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate beams of light; and

[f] [i] resolving from the first single collinear beam of light a first resolved beam of light having substantially a first selected predetermined orientation of a chosen component of electric field vectors and a second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of electric field vectors, and

[ii] resolving from the second single collinear beam of light a first resolved beam of light having substantially a first selected predetermined orientation of a chosen component of electric field vectors and a second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of electric field vectors.

248. (Original) A method as described in claim 247 wherein step [a] includes providing a substantially collimated primary beam of light.

249. (Original) A method as described in claim 247 wherein step [a] includes providing the primary of light having a rectangular cross sectional area.

250. (Original) A method as described in claim 247 wherein step [a] includes providing a primary beam of light having substantially the same selected predetermined orientation for the chosen component of the electric field vectors substantially across the beam.

251. (Original) A method as described in claim 247 wherein step [b] includes resolving the primary beam into primary first and second resolved beams in which each of the resolved beams of light has the substantially same selected predetermined orientation of the chosen component of the electric field vectors substantially across each of the resolved beams of light as that of the other resolved beams of light.

252. (Original) A method as described in claim 247 wherein step [b] includes resolving the primary beam into primary first and second resolved beams in which the first selected predetermined orientation of the chosen component of the electric field vectors has the same selected predetermined orientation of the chosen component of the electric field vectors of the second selected predetermined orientation of the chosen component of the electric field vectors.

253. (Original) A method as described in claim 247 further comprising the step of passing at least one of the resolved beams of light from step [f] to a projection means.

254. (Currently Amended) A method as described in claim 247 further comprising the step of passing one of the resolved beams of light from step [f] [i] to a first side of a projection means and passing one of the resolved beams of light from step [f] [ii] to a second side of said projection means.

255. (Original) A method as described in claim 247 further comprising the step of adjusting the light spectrum of at least one of the separate beams of light.

256. (Original) A method as described in claim 255 wherein the step of adjusting the electromagnetic spectrum of at least one of the separate beams of light includes adjusting the predetermined range of wavelengths of at least one of the separate beams of light.

257. (Original) A method as described in claim 255 wherein the step of adjusting the electromagnetic spectrum of at least one of the separate beams of light includes adjusting a magnitude of at least one of the separate beams of light.

258. (Original) A method as described in claim 247 wherein step [c] includes separating each of the primary resolved beams into two or more separate beams in which each of the separate beams of light further has the light spectrum different from the other separate beams of light.

259. (Original) A method as described in claim 258 wherein step [c] includes separating each of the primary resolved beams into two or more separate beams in which each of the separate beams of light has a predetermined range of wavelengths different from the other separate beams of light.

260. A method as described in claim 258 further comprising the step of adjusting the magnitude of at least one of the separate beams of electromagnetic energy from step [c].

261. (Currently Amended) A system of producing a modulated beam of electromagnetic energy, comprising:

[a] means for providing a primary beam of electromagnetic energy having a predetermined range of wavelengths ~~and randomly changing orientations of a chosen component of electromagnetic wave field vectors~~;

[b] means for resolving the primary beam of electromagnetic energy into a primary first resolved beam of electromagnetic energy having substantially a first selected predetermined orientation of a chosen component of the electromagnetic wave field vectors and a primary second resolved beam of electromagnetic energy

having substantially a second selected predetermined orientation of a chosen component of the electromagnetic wave field vectors;

[c] means for separating each of the primary resolved beams of electromagnetic energy into two or more separate beams of electromagnetic energy, each of the separate beams of electromagnetic energy having a selected predetermined orientation of a chosen component of electromagnetic wave field vectors;

[d] means for altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of a plurality of portions of each of the separate beams of electromagnetic energy by passing the plurality of portions of each of the separate beams of electromagnetic energy through a respective one of a plurality of altering means whereby the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as the plurality of portions of each of the separate beams of electromagnetic energy passes through the respective one of the plurality of means for altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors;

[e] [i] means for combining the altered separate beams of electromagnetic energy of the primary first resolved beam of electromagnetic energy into a first single collinear beam of electromagnetic energy, without previously subcombining any plurality of the altered separate beams of the primary first resolved beam and without substantially changing the altered selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy, and

[ii] means for combining the altered separate beams of electromagnetic energy of the primary second resolved beam of electromagnetic energy into a second single collinear beam of electromagnetic energy, without previously subcombining any plurality of the altered separate beams of the primary second resolved beam and without substantially changing the altered selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy; and

[f] [i] means for resolving from the first single collinear beam of electromagnetic energy a first resolved beam of electromagnetic energy having substantially a first selected predetermined orientation of a chosen component of electromagnetic wave field vectors and a second resolved beam of electromagnetic energy having substantially a second selected predetermined orientation of a chosen component of electromagnetic wave field vectors, and

[ii] means for resolving from the second single collinear beam of electromagnetic energy a first resolved beam of electromagnetic energy having substantially a first selected predetermined orientation of a chosen component of electromagnetic wave field vectors and a second resolved beam of electromagnetic energy having substantially a second selected predetermined orientation of a chosen component of electromagnetic wave field vectors.

262. (Original) A system as described in claim 261 in which the means for providing a primary beam of electromagnetic energy includes means for providing a substantially collimated beam of electromagnetic energy.

263. (Original) A system as described in claim 261 in which the means for providing a primary beam of electromagnetic energy includes means for providing the initial beam of electromagnetic energy having a rectangular cross sectional area.

264. (Original) A system as described in claim 261 in which the means for providing a primary beam of electromagnetic energy includes means for providing an initial beam of electromagnetic energy having substantially the same selected predetermined orientation for the chosen component of the electromagnetic wave field vectors substantially across the beam.

265. (Original) A system as described in claim 261 in which the means for resolving the primary beam of electromagnetic energy into primary first and second resolved beams of electromagnetic energy includes means for resolving the primary beam of electromagnetic energy into primary first and second resolved beams of electromagnetic energy with the resolved beams of electromagnetic energy having the substantially same selected predetermined orientation of the chosen component of the electromagnetic wave field vectors substantially across each of the resolved beams of

electromagnetic energy as that of the ocher resolved beams of electromagnetic energy.

266. (Original) A system as described in claim 261 in which the means for resolving the primary beam of electromagnetic energy into primary first and second resolved beams of electromagnetic energy includes means for resolving the primary beam of electromagnetic energy into primary first and second resolved beams of electromagnetic energy with the first selected predetermined orientation of the chosen component of the electromagnetic wave field vectors having the same selected predetermined orientation of the chosen component of the electromagnetic wave field vectors as that of the second selected predetermined orientation of the chosen component of the electromagnetic wave field vectors.

267. (Original) A system as described in claim 261, further comprising means for passing at least one of the resolved beams of electromagnetic energy from step [f] to a projection means.

268. (Currently Amended) A system as described in claim 261 further comprising means for passing one of the resolved beams of electromagnetic energy from step [f] [i] to a first side of a projection means and passing one of the resolved beams of electromagnetic energy from step [f] [ii] to a second side of said projection means.

269. (Currently Amended) A system as described in claim 261 further comprising ~~the~~ means for adjusting ~~the~~an electromagnetic spectrum of at least one of the separate beams of electromagnetic energy.

270. (Original) A system as described in claim 269 wherein the means for adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy includes means for adjusting a predetermined range of wavelengths of at least one of the separate beams of electromagnetic energy.

271. (Currently Amended) A system as described in claim 269 wherein the means for adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy includes ~~the~~ means for adjusting a magnitude of at least one

of the separate beams of electromagnetic energy.

272. (Original) A system as described in claim 261 wherein the separating means includes means for separating the beams in which each of the separate beams of electromagnetic energy has an electromagnetic spectrum different from the electromagnetic spectrum of each of the other separate beams of electromagnetic energy.

273. (Original) A system as described in claim 272 wherein the separating means includes means for separating the beams in which each of the separate beams of electromagnetic energy has a predetermined range of wavelengths different from a predetermined range of wavelengths of each of the other separate beams of electromagnetic energy.

274. (Currently Amended) A system as described in claim 272 further comprising ~~the~~ means for ~~the~~adjusting a magnitude of at least one of the separate beams of electromagnetic energy.

275. (Currently Amended) A system of producing a modulated beam of light, comprising:

[a] means for providing a primary beam of light having a predetermined range of wavelengths ~~and randomly changing orientations of a chosen component of electric field vectors~~;

[b] means for resolving the primary beam of light into a primary first resolved beam of light having substantially a first selected predetermined orientation of a chosen component of the electric field vectors and a primary second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of the electric field vectors;

[c] means for separating each of the primary resolved beams of light into two or more separate beams of light, each of the separate beams of light having a selected predetermined orientation of a chosen component of electric field vectors;

[d] means for altering the selected predetermined orientation of the chosen component of the electric field vectors of a plurality of portions of each of the separate beams of light by passing the plurality of portions of each of the separate

beams of light through a respective one of a plurality of altering means whereby the selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate beams of light is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as the plurality of portions of each of the separate beams of light passes through the respective one of the plurality of means for altering the selected predetermined orientation of the chosen component of the electric field vectors;

[e] [i] means for combining the altered separate beams of light of the primary first resolved beam of light into a first single collinear beam of light, without previously subcombining any plurality of the altered separate beams of the primary first resolved beam and without substantially changing the altered selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate beams of light, and

[ii] means for combining the altered separate beams of light of the primary second resolved beam of light into a second single collinear beam of light, without previously subcombining any plurality of the altered separate beams of the primary second resolved beam and without substantially changing the altered selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate beams of light; and

[f] [i] means for resolving from the first single collinear beam of light a first resolved beam of light having substantially a first selected predetermined orientation of a chosen component of electric field vectors and a second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of electric field vectors, and

[ii] means for resolving from the second single collinear beam of light a first resolved beam of light having substantially a first selected predetermined orientation of a chosen component of electric field vectors and a second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of electric field vectors.

276. (Original) A system as described in claim 275 in which the means for providing a primary beam of light includes means for providing a substantially collimated beam of light.

277. (Original) A system as described in claim 275 in which the means for providing a primary beam of light includes means for providing the initial beam of light having a rectangular cross sectional area.

278. (Original) A system as described in claim 275 in which the means for providing a primary beam of light includes means for providing an initial beam of light having substantially the same selected predetermined orientation for the chosen component of the electric field vectors substantially across the beam.

279. (Original) A system as described in claim 275 in which the means for resolving the primary beam of light into primary first and second resolved beams of light includes means for resolving the primary beam of light into primary first and second resolved beams of light with the resolved beams of light having the substantially same selected predetermined orientation of the chosen component of the electric field vectors substantially across each of the resolved beams of light as that of the other resolved beams of light.

280. (Original) A system as described in claim 275 in which the means for resolving the primary beam of light into primary first and second resolved beams of light includes means for resolving the primary beam of light into primary first and second resolved beams of light with the first selected predetermined orientation of the chosen component of the electric field vectors having the same selected predetermined orientation of the chosen component of the electric field vectors as that of the second selected predetermined orientation of the chosen component of the electric field vectors.

281. (Original) A system as described in claim 275 further comprising means for passing at least one of the resolved beams of light from step [f] to a projection means.

282. (Currently Amended) A system as described in claim 275 further comprising means for passing one of the resolved beams of light from step [f] [i] to a first side of a projection means and passing one of the resolved beams of light from step [f] [ii] to a second side of said projection means.

283. (Currently Amended) A system as described in claim 275 further comprising ~~the~~ means for adjusting ~~the~~an electromagnetic spectrum of at least one of the separate beams of light.

284. (Original) A system as described in claim 283 wherein the means for adjusting the electromagnetic spectrum of at least one of the separate beams of light includes means for adjusting a predetermined range of wavelengths of at least one of the separate beams of light.

285. (Currently Amended) A system as described in claim 283 wherein the means for adjusting the electromagnetic spectrum of at least one of the separate beams of light includes ~~the~~ means for adjusting a magnitude of at least one of the separate beams of light.

286. (Original) A system as described in claim 275 wherein the separating means includes means for separating the beams in which each of the separate beams of light has an light spectrum different from the light spectrum of each of the other separate beams of light.

287. (Original) A system as described in claim 286 wherein the separating means includes means for separating the beams in which each of the separate beams of light has a predetermined range of wavelengths different from a predetermined range of wavelengths of each of the other separate beams of light.

288. (Currently Amended) A system as described in claim 286 further comprising ~~the~~ means for adjusting the magnitude of at least one of the separate beams of light.

Claims 289-438 (canceled).